

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-readable medium containing a storage disk device driver architecture for access by a processing system, wherein the architecture comprises:

a RAID class driver including;

a first physical device object representing a RAID system comprised of a plurality of physical disks[[.]]; and

a plurality of functional device objects, each associated with one of the physical disks and adapted to interface with a second physical device object representing that physical disk, wherein each second physical device object provides a RAID-specific device identification, wherein the first physical device object is attached with each functional device object, and wherein each functional device object is associated with a different physical disk,

wherein the RAID class driver is configured to be loaded into the processing system when a RAID-specific device identification is provided.

2. (Currently Amended) The computer-readable medium of claim 1, wherein the a second physical device object providing a RAID-specific device identification is included in a disk controller driver adapted to interface with a disk controller.

3. (Previously Presented) The computer-readable medium of claim 1, wherein the first physical device object representing the RAID system is adapted to provide a standard disk device identification to an operating system.

4. (Previously Presented) The computer-readable medium of claim 1, wherein the RAID class driver is adapted to combine each physical disk into the RAID system.

5. (Previously Presented) The computer-readable medium of claim 4, wherein in response to receiving a request to write a data block to RAID system, the RAID class driver is adapted to mirror the data block on at least a portion of the plurality of physical disks via the associated functional device objects.

6. (Previously Presented) The computer-readable medium of claim 4, wherein in response to receiving a request to write a first and second data block to RAID system, the RAID class driver is adapted to write via the associated functional device objects the first data block to a first portion of the plurality of physical disks and to write via the associated functional device objects the second data block to a second portion of the plurality of physical disks.

7. (Previously Presented) The computer-readable medium of claim 4, wherein in response to receiving a request to write a first and second data block to RAID system, the RAID class driver is adapted to write via the associated functional device objects an error correction block to a portion of the plurality of physical disks.

8. (Previously Presented) The computer-readable medium of claim 1, wherein the physical device object representing a RAID system is a child of a RAID controller functional device object adapted to interface with a RAID controller physical device object.

9. (Previously Presented) The computer-readable medium of claim 1, wherein the RAID class driver is adapted to configure the physical device object representing a RAID system according to RAID configuration data stored in a computer system configuration memory.

10. (Currently Amended) The computer-readable medium of claim 1; A computer-readable medium containing a storage disk device driver architecture for access by a processing system, wherein the architecture comprises:

a RAID class driver including

a first physical device object representing a RAID system comprised of a plurality of physical disks,

a plurality of functional device objects, each associated with one of the physical disks and adapted to interface with a second physical device object representing that physical disk, wherein each second physical device object provides a RAID-specific device identification, wherein the first physical device object is attached with each functional device object, and wherein each functional device object is associated with a different physical disk,

wherein the second physical device objects interface with the physical disks through at least two disk controllers, and wherein a first portion of the plurality of physical disks is associated with a first disk controller of a first type and a second portion of the plurality of physical disks is associated with a second disk controller of a second type.

11. (Previously Presented) The computer-readable medium of claim 10, wherein the first type is an EIDE type controller and the second type is a SCSI type controller.

12. (Previously Presented) The computer-readable medium of claim 10, wherein the first type is a serial ATA type controller and the second type is a parallel ATA type controller.

13. (Previously Presented) The computer-readable medium of claim 10, wherein the second type is a controller for an external disk.

14. (Previously Presented) The computer-readable medium of claim 1, wherein the RAID class driver is adapted to optimize data access by combining separate data access operations associated with a physical disk of the RAID system into a single data access operation.

15. (Previously Presented) An integrated circuit adapted to perform core logic functions of a computer, the integrated circuit comprising:

a RAID controller adapted to induce an operating system to load, into a processing unit on another integrated circuit, a RAID class driver having a physical device object representing a RAID system comprised of a plurality of disks; and

a first disk controller adapted to interface with at least a portion of the plurality of disks and further adapted to induce the operating system to load a disk controller driver, wherein the disk controller driver is adapted to provide RAID-specific device identifications for the portion of the plurality of disks, and wherein the RAID controller is not adapted to interface with any of the plurality of disks of the RAID system.

16. (Original) The integrated circuit of claim 15, wherein the physical device object representing the RAID system is adapted to provide a standard disk device identification to an operating system.

17. (Original) The integrated circuit of claim 15, wherein in response to receiving a request to write a data block to the RAID system, the integrated circuit is adapted to mirror the data block on at least a portion of the plurality of disks.

18. (Original) The integrated circuit of claim 15, wherein in response to receiving a request to write a first and second data block to the RAID system, the integrated circuit is adapted to write the first data block to a first subset of the portion of the plurality of disks and to write the second data block to a second subset of the portion of the plurality of disks.

19. (Original) The integrated circuit of claim 15, wherein in response to receiving a request to write a first and second data block to the RAID system, the integrated circuit is adapted to write an error correction block to at least a subset of the portion of the plurality of disks.

20. (Original) The integrated circuit of claim 19, wherein the integrated circuit is adapted to determine the value of an error correction block from the first and second data block.

21. (Original) The integrated circuit of claim 15, wherein the integrated circuit is adapted to configure the physical device object representing a RAID system according to RAID configuration data stored in a computer system configuration memory.

22. (Original) The integrated circuit of claim 15, further adapted to interface with a second disk controller, wherein the second disk controller adapted to interface with at least a second portion of the plurality of disks and further adapted to induce the operating system to load a second disk controller driver, wherein the second disk controller driver is adapted to provide RAID-specific device identifications for the second portion of the plurality of disks.

23. (Original) The integrated circuit of claim 15, further including a second disk controller adapted to interface with at least a second portion of the plurality of disks and further adapted to induce the operating system to load a second disk controller driver, wherein the second disk controller driver is adapted to provide RAID-specific device identifications for the second portion of the plurality of disks.

24. (Original) The integrated circuit of claim 23, wherein the first disk controller is of a first type and the second disk controller is of a second type.

25. (Original) The integrated circuit of claim 24, wherein the first type is an EIDE type controller and the second type is a SCSI type controller.

26. (Original) The integrated circuit of claim 24, wherein the first type is a serial ATA type controller and the second type is a parallel ATA type controller.

27. (Original) The integrated circuit of claim 24, wherein the second type is a controller for an external disk.

28. (Currently Amended) A method of creating a RAID system comprised of a plurality of physical disks and coupled with a computer system running an operating system, the method comprising:

receiving a RAID-specific device identification for each physical disk of the RAID system;

binding a respective RAID-specific functional interface to each physical disk of the RAID system;

binding all of the RAID-specific functional interfaces to a same disk object through which representing the entire RAID system is accessed as a single disk; and

providing the operating system with a standard disk device identification via the disk object.

29. (Previously Presented) The method of claim 28, wherein the RAID-specific device identification is received from one or more disk controllers, wherein each disk controller is adapted to interface with at least a portion of the plurality of physical disks.

30. (Previously Presented) The method of claim 29, wherein a first disk controller is of a first type and a second disk controller is of a second type.

31. (Canceled)

32. (Previously Presented) The method of claim 28, further comprising initializing the RAID class driver in response to the identification of a RAID controller.

33. (Previously Presented) The method of claim 32, wherein the RAID controller comprises hardware.

34. (Previously Presented) The method of claim 28, further comprising loading a standard disk driver to interface with the disk object, thereby enabling transparent access to the RAID system.

35. (Previously Presented) The method of claim 28 wherein the RAID-specific device identifications are obtained from a CMOS configuration.

36. (Previously Presented) The computer-readable medium of claim 1 wherein the RAID-specific device identifications are obtained from a CMOS configuration.

37. (New) The method of claim 29, further comprising:
receiving, at a first functional device object of a bus driver from a first disk controller of the disk controllers, the RAID-specific device identification for a first physical disk of the RAID system;
receiving, at a first physical device object of the bus driver from the first functional device object, the RAID-specific device identification for the first physical disk wherein a first respective RAID-specific functional interface is bound to the first device object of the bus driver.

38. (New) The method of claim 37, further comprising:
loading a RAID class driver when a RAID-specific device identification is received, wherein the RAID class driver binds the respective RAID-specific functional interfaces and binds the RAID-specific functional interfaces to the same disk object representing the entire RAID system; and
when a general device identification for another disk of the computer system is received, passing the general device identification from a bus driver to a disk driver of the operating system.